Statistical Bulletin

METROPOLITAN LIFE INSURANCE COMPANY

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Improved Outlook for Surgical Patients

SURGERY is now undertaken with less risk to the patient than ever before. The mortality incidental to virtually all types of operations, even the most radical, has been materially reduced in recent years. A wide variety of factors have played a part in this achievement, particularly the better training of surgeons, advances in surgical techniques, and the wide use of the newer chemotherapeutic and antibiotic agents to control infection. Surgical patients have also benefited substantially from improved anesthetic substances and procedures, as well as from better preoperative preparation and postoperative care. Blood transfusion has been used increasingly to prevent death from surgical shock. The practice of getting patients out of bed as soon as possible after an operation has undoubtedly reduced the incidence of pulmonary embolism, which in the past not infrequently was the cause of sudden death following surgery. Furthermore, as surgery has become safer, it has become feasible not only to utilize more radical procedures but also to undertake operations in cases where surgery formerly would have been considered impracticable.

Inasmuch as comprehensive data on surgical mortality are lacking, some statistics from selected hospital experiences which are indicative of the progress made in reducing operative deaths have been compiled in the table on page 2. These figures compare surgical mortality in recent years with that about a decade or more earlier for various types of major operations, including surgery for benign and malignant conditions of the digestive tract, diabetic gangrene, and certain female disorders. In every one of the experiences cited, surgical mortality was reduced by at least one half, and in several instances by more than four fifths.

This record is all the more remarkable in that recent years have witnessed a general increase in the proportion of older patients, for whom the risk of surgery is usually greater than that for younger persons. For example, in recent years persons at ages 50 or over constituted somewhat over half the total number of patients undergoing radical surgery of the stomach and duodenum in three Chicago hospitals, whereas less than two decades earlier the corresponding proportion was one third.

SURGICAL MORTALITY IN SPECIFIED MAJOR OPERATIONS

COMPARISON OF RECENT AND EARLIER RESULTS FOR SELECTED EXPERIENCES

DISEASE; OPERATION	SOURCE OF DATA	RECENT EXPERIENCE			EARLIER EXPERIENCE		
		Period Covered	Number of Cases	Surgical Mortality	Period Covered	Number of Cases	Surgical Mortality
Ulcer of stomach							
Subtotal gastrectomy	Three Chicago hospitals[a]	1938-1950	131	1.7%	1917-1937	131	4.5%
Ulcer of duodenum							
Subtotal gastrectomy	Three Chicago hospitals[a]	1938-1950	614	1.3%	1917-1937	717	3.2%
Partial gastrectomy	Mayo Clinic[b]	1950-1952	1167	1.9%	1939-1941	541	3.9%
Gastric cancer							
Total gastrectomy	Lahey Clinic (early cases)[c]	1944-1950	64	9.4%	1927-1943	75	34.6%
	Mayo Clinic[b]	1950-1952	74	17.6%	1939-1941	20	35.0%
Partial gastrectomy	Mayo Clinic[b]	1950-1952	397	5.3%	1939-1941	347	10.7%
Gall bladder disease							
Removal of gall bladder	Mayo Clinic[b]	1950-1952	3532	0.7%	1939-1941	2979	1.9%
Diabetic gangrene							
Major amputation	New England Deaconess Hospital, Boston[d]	1941-1949	358	5.5%	1923-1941	680	13.7%
Hysterectomy	Cook County Hospital, Chicago[e]	1943-1947	3196	1.1%	1926-1930	2117	4.4%
Caesarean section	Bronx Hospital, New York[f]	1943-1951	852	0.6%	1932-1942	494	3.4%
	Millard Fillmore Hospital, Buffalo[g]	1945-1949	1535	0.2%	1937-1941	683	2.6%

Note—Because of differences in the definition of surgical mortality and for other reasons, the mortality figures for the various clinical experiences are not to be compared. Comparison should be made only of the mortality in the two calendar periods of each experience separately, and even these figures may not be strictly comparable in every instance.

[a] A. A. Strauss *et al*, *Journal of the American Medical Association*, July 19, 1952, p. 1095.
[b] *Proceedings of the Staff Meetings of the Mayo Clinic* (various issues).
[c] F. H. Lahey and S. F. Marshall, *Annals of Surgery*, September 1950, p. 540.
[d] L. S. McKittrick *et al*, *ibid.*, October 1949, p. 826.
[e] J. P. Greenhill and H. M. Loeff, *American Journal of Obstetrics and Gynecology*, February 1951, p. 340.
[f] A. C. Posner *et al*, *ibid.*, January 1954, p. 64.
[g] L. F. McLean *et al*, *ibid.*, October 1950, p. 860.

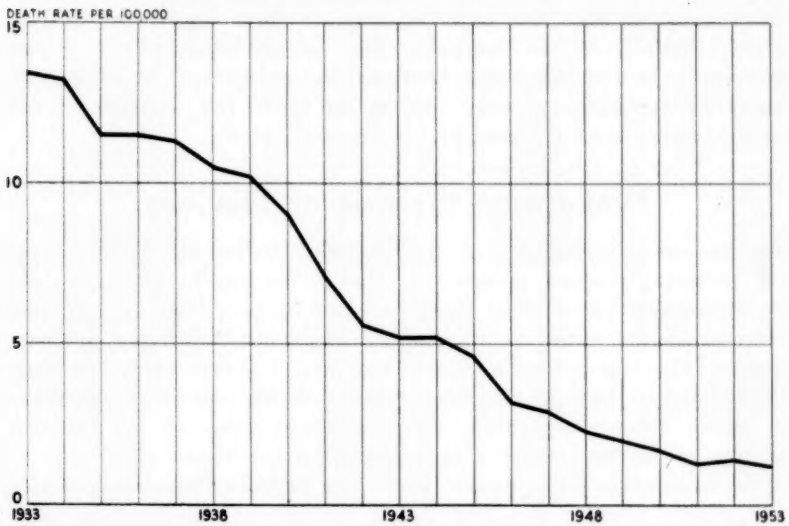
The improved outlook for patients with surgical conditions is strikingly illustrated by the rapid decline in the mortality from appendicitis. Surgical mortality in uncomplicated cases has been extremely low for more than a decade. The death rate from appendicitis among the Industrial policyholders of the Metropolitan Life Insurance Company dropped by three fourths in the past decade and by nine tenths in the past two decades, as may be seen from the accompanying chart. This remarkable progress reflects not only medical and surgical advances but also the reduced frequency of cases complicated by peritonitis. The latter factor is attributable to the intensive educational campaign against the use of laxatives in the presence of abdominal pain as well as to the recognition of the importance of early surgical intervention.

The long-range outlook for patients who recover from major surgery is also generally satisfactory. A large proportion of such persons become eligible for Life insurance within a reasonable time after operation, although for certain conditions

Age-Adjusted Death Rates* From Appendicitis

TOTAL PERSONS, AGES 1 TO 74 YEARS

INDUSTRIAL POLICYHOLDERS, METROPOLITAN LIFE INSURANCE COMPANY, 1933-1953



*Adjusted on basis of Standard Million Population of England and Wales, 1901.

an extra premium may be charged. The mortality experience among persons with a history of major surgery accepted for Life insurance during the period 1935 to 1949, and traced to 1950, is available from a recent study of a large number of Life insurance companies.* Among persons with a history of removal of the gall bladder, the subsequent mortality in cases insured within two years of operation was only moderately higher than that for standard risks as a whole, while for those insured after a longer interval since operation, the mortality was only slightly above that for standard risks. Similarly, among persons insured more than five years after operation for kidney stones, the mortality was only slightly higher than that among standard risks. This also was the situation for women insured three or more years after hysterectomy or ovarian operation for conditions other than malignant tumor. For women with a history of Caesarean section, apart from an extra risk in subsequent pregnancies, mortality was little greater than that for females as a whole accepted for standard insurance.

It is likely that in the future surgery will play an even greater role in the treatment of many conditions. There has already been an increased

**1951 Impairment Study*, Society of Actuaries, April 1954.

use of surgery in infancy for the correction of congenital defects that interfered with the normal growth and development of the child, or even greatly shortened its life. Similarly, there is far less hesitancy than formerly in operating on very old patients; the results in many large experiences have proved highly satisfactory. Notable advances also have been made recently in the surgery of chest organs. Altogether, there is good reason to expect that surgery will continue to add greatly to the health and longevity of the American people.

Nationwide Increase of Families

THE GREAT willingness of the present generation to take on the responsibilities of family life is reflected by the record number of persons who married after World War II and by the continuing boom in births. During the 1940's, the number of families in the United States increased by 6.1 million, or by 19 percent, bringing the total to about 38.3 million in April 1950. In the decade between 1930 and 1940, the increase was only 4.2 million, or 15 percent. Moreover, the number of families has continued to grow since 1950, and is now at an all-time high.

Every section of the United States had more families in 1950 than in 1940, as is evident from the table on page 5. The gain varied markedly, however, from State to State. Practically no increase—only 1 percent—occurred in three South Central States, namely, Mississippi, Arkansas, and Oklahoma. Relatively small gains—less than 10 percent—were experienced by Vermont and Kentucky, and by five of the West North Central States. At the other extreme, six States recorded gains far in excess of the national average. In Arizona, California, Florida, and Nevada the number of families increased by more than one half, and in Oregon and Washington by about two fifths. It is noteworthy that these States led the country in population growth, and that all but one are located in the West.

The marked geographic variations in increase of families were due largely to the interstate movement of population. Each of the States with a small increase of families during the decade from 1940 to 1950 sustained a loss of population by migration, whereas the States with a marked increase of families were those which attracted a relatively large number of migrants. The record influx of population into California was the major factor in that State's gain of one million families. As a result, California has passed Pennsylvania and Illinois in number of families, and is now outranked only by New York.

About 138 million persons, or more than nine tenths of the population in the United States, were living in family units in 1950. Family size was smallest in the District of Co-

NUMBER OF FAMILIES IN THE UNITED STATES, APRIL OF 1940 AND 1950

AREA	NUMBER OF FAMILIES			PERSONS PER FAMILY, 1950
	1950	1940	PERCENT INCREASE	
United States	38,310,980	32,166,000	19	3.60
New England	2,330,245	2,009,000	16	3.63
Maine	223,175	201,000	11	3.75
New Hampshire	134,255	120,000	12	3.59
Vermont	90,100	84,000	7	3.77
Massachusetts	1,171,805	1,025,000	14	3.62
Rhode Island	198,630	167,000	19	3.63
Connecticut	512,280	412,000	24	3.59
Middle Atlantic	7,765,545	6,754,000	15	3.55
New York	3,862,050	3,379,000	14	3.47
New Jersey	1,263,570	1,030,000	23	3.54
Pennsylvania	2,639,925	2,345,000	13	3.68
East North Central	7,897,520	6,727,000	17	3.53
Ohio	2,077,595	1,761,000	18	3.53
Indiana	1,039,105	892,000	16	3.50
Illinois	2,287,955	2,008,000	14	3.45
Michigan	1,624,875	1,308,000	24	3.62
Wisconsin	867,990	758,000	15	3.64
West North Central	3,649,590	3,370,000	8	3.52
Minnesota	747,680	665,000	12	3.63
Iowa	686,785	644,000	7	3.49
Missouri	1,057,260	986,000	7	3.41
North Dakota	144,855	139,000	4	3.94
South Dakota	160,625	149,000	8	3.73
Nebraska	344,720	327,000	5	3.51
Kansas	507,665	460,000	10	3.42
South Atlantic	5,086,625	4,057,000	25	3.84
Delaware	79,730	64,000	25	3.65
Maryland	581,840	431,000	35	3.68
District of Columbia	198,180	165,000	20	3.26
Virginia	785,060	593,000	32	3.85
West Virginia	479,265	434,000	10	3.95
North Carolina	939,215	772,000	22	4.07
South Carolina	477,780	410,000	17	4.19
Georgia	824,095	715,000	15	3.91
Florida	721,460	473,000	53	3.44
East South Central	2,764,405	2,507,000	10	3.92
Kentucky	717,535	671,000	7	3.86
Tennessee	808,145	686,000	18	3.83
Alabama	729,765	646,000	13	3.98
Mississippi	508,960	504,000	1	4.04
West South Central	3,695,400	3,193,000	16	3.65
Arkansas	477,200	472,000	1	3.78
Louisiana	648,410	554,000	17	3.87
Oklahoma	590,840	587,000	1	3.50
Texas	1,978,950	1,580,000	25	3.60
Mountain	1,257,665	991,000	27	3.68
Montana	145,775	133,000	10	3.62
Idaho	148,710	128,000	16	3.67
Wyoming	72,235	60,000	20	3.57
Colorado	338,205	278,000	22	3.51
New Mexico	159,885	119,000	34	3.97
Arizona	181,985	116,000	57	3.77
Utah	169,925	130,000	31	3.83
Nevada	40,945	27,000	52	3.37
Pacific	3,863,985	2,558,000	51	3.31
Washington	625,185	451,000	39	3.36
Oregon	411,690	291,000	41	3.34
California	2,827,110	1,816,000	56	3.29

Note—Number of families, by State, in 1940 estimated by the Statistical Bureau of the Metropolitan Life Insurance Company. A family is defined as a group of two or more persons related by blood, marriage, or adoption and living together.

Source of basic data: Various reports by the Bureau of the Census.

lumbia and along the Pacific Coast, where it averaged about 3.3 persons per family. On the other hand, States with substantial farm populations, particularly those in the South, tended to have the largest number of persons per family. The Carolinas and Mississippi, for example, had somewhat more than four persons per family. The details for each of the States are shown in the right-hand column of the table on page 5.

In view of the record number of births in recent years, it may come as a surprise to many readers that the average number of persons in an American family has decreased. For the country as a whole, the average number per family declined from 3.77 in 1940 to 3.60 in 1950. A number of factors account for this paradox. Foremost, of course, was the marriage boom which reduced the number of persons in existing families and at the same time added many new families with a small number of persons. Then, too, the increase in the size of our Armed Forces since 1940 has withdrawn millions of our men from their homes. Finally, favorable economic conditions and the large volume of housing construction enabled thousands of married couples and other groups of related persons to establish independent households. As a matter of fact, the increase in households—23 percent for the country as a whole—was greater than the rate of increase for families in every area of the country outside of the West, and in that region the rates of growth for households and families were practically on a par.

Infectious Hepatitis—A Growing Health Problem

THE PAST few years have witnessed a sharp rise in the reported number of cases of infectious hepatitis, an acute virus infection usually accompanied by jaundice. Although the disease frequently escapes detection, somewhat over 50,000 cases* will probably be reported in the United States during 1954, or about one and one-half times the number reported the year before, and nearly three times the total for 1952. The major part of this increase undoubtedly reflects merely the better recognition and more complete reporting of cases. However, some of the rise in the incidence of the disease probably is real. On the basis of its reported incidence, infectious hepatitis now ranks among the leading communicable diseases. Fortunately, only a small proportion of the cases terminate fatally. In 1952, there were only 794 deaths from the disease reported in the United States, equivalent to a death rate of .5 per 100,000 population.

Although infectious hepatitis strikes at every period of life, its incidence is highest among school-age children. The accompanying table shows the age distribution of cases

*Includes cases of serum hepatitis.

in several States for which such data are available. About one third of all the reported cases in these areas were among children at ages 5-9, and more than one fifth were at ages 10-14. Altogether, three fifths of the cases were reported among children under 15 years of age. Very different is the age distribution of deaths from infectious hepatitis. In the country as a whole, in 1951, less than one sixth of the deaths from this disease were at the ages under 15, and more than half were at ages 45 and over. It would appear, then, that the case-fatality rate for the disease is considerably higher for adults than for children.

The recorded incidence rate for infectious hepatitis varies considerably from State to State. In general, the States with the highest case rates are in the northern part of the country. Last year, the greatest number of cases in relation to population was reported in Maine, Oregon, Virginia, and Iowa, where the incidence rate was somewhat over three times the national average of 22 per 100,000 population. In interpreting these results, it should be borne in mind that the extent to which cases are reported is not uniform throughout the country.

National figures indicate that cases of infectious hepatitis occur with greater frequency during the colder months than at other times of the year. From a low point in the summer the number of cases usually rises to a peak in the late winter or spring, and then drops off until it returns to its minimum.

CASES OF INFECTIOUS HEPATITIS*
THREE STATES†, 1951-1953

AGE (YEARS)	AVERAGE ANNUAL NUMBER	PERCENT OF TOTAL
All ages	705	100
Under 5	42	6
5- 9	225	32
10-14	156	22
15-19	70	10
20-24	43	6
25-29	42	6
30-34	37	5
35-44	41	6
45 and over	49	7

*Includes serum hepatitis.

†Tennessee for years 1951 through 1953; California, 1951 and 1952; and Oklahoma, 1953.

The control of infectious hepatitis and serum hepatitis presents many difficult problems to physicians and public health workers. While a number of epidemics of infectious hepatitis have been traced to personal contact and to contaminated water and food supplies, the route of transmission in most instances has not been definitely established. There is evidence that the disease may be spread by carriers of the virus who have neither a history of hepatitis nor any clinical symptoms of it. Then, too, knowledge concerning the causative organism is limited because thus far efforts to infect experimental animals with the disease have failed. Furthermore, the disease does not respond

to chemotherapy, antibiotics, or any other specific therapy.

Despite these difficulties, infectious and serum hepatitis are to some extent amenable to control. Gamma globulin has proved effective in preventing cases among persons exposed to the disease. Outbreaks in institutional populations and in camps can be reduced by greater attention to personal hygiene and environmental sanitation.

Where Fatal Accidents Occur

ONE OF THE difficulties facing the safety movement is that accidents occur in a wide variety of places. Fatal accidents take place in and about the home, in industrial plants and factories, on streets and highways, in places of recreation—in short, wherever people live, work, play, or travel.

The relative frequency of fatal mishaps by place of occurrence among the Industrial policyholders of the Metropolitan Life Insurance Company is shown in Table 1; the data relate to males and females at ages 1 to 74 years and cover the period 1951-1953. One of the striking facts immediately evident from this tabulation is that transport accidents account for approximately as many deaths as all nontransport accidents together.

Whatever the place of occurrence, accidents in this recent insurance experience took a heavier toll of life among males than among females. In industry — factories, workshops, mines, and quarries—and on farms, deaths from accidents were almost exclusively among males, reflecting the greater number of men employed in these places and the greater hazards attending their work. For transport accidents, the ratio of the male to female death rate was about 3½ to 1. Even for home accidents the excess male mortality amounted to about a third. For all accidents combined, the death rate for males was about three times that for females among these Industrial policyholders.

The principal types of mishaps in transport and nontransport accidents are shown in Table 2. Injuries sustained in motor vehicle accidents accounted for 85 percent of the deaths from transport accidents among males and for an even larger proportion among females. The other transport deaths were due largely to water transportation, railroad, and aviation accidents. In addition, there was a relatively small number of deaths in mishaps involving bicycles, streetcars, and other road vehicles. It is of interest that an appreciable part of the fatal injuries in motor vehicle, water transport, and railroad accidents among men arose out of and in the course of employment.

In industry, falls and injuries involving machinery outranked every other type of fatal accident. Among males, falls constituted somewhat over one fifth of the deaths, and

TABLE 1—MORTALITY FROM ACCIDENTS BY PLACE OF ACCIDENT
MALES AND FEMALES, AGES 1 TO 74 YEARS
INDUSTRIAL POLICYHOLDERS,* METROPOLITAN LIFE INSURANCE COMPANY, 1951-1953

PLACE OF ACCIDENT	MALES			FEMALES		
	NUMBER OF DEATHS	PERCENT OF TOTAL	DEATH RATES PER 100,000	NUMBER OF DEATHS	PERCENT OF TOTAL	DEATH RATES PER 100,000
Accidents—Total	14,248	100	61.9	6,116	100	19.2
Transport	7,363	52	32.0	2,872	47	9.0
Nontransport	6,885	48	29.9	3,244	53	10.2
Street and highway	358	3	1.6	108	2	0.3
Public buildings	294	2	1.3	83	1	0.3
Industrial places and premises	1,073	8	4.7	19	‡	0.1
Farm	138	1	0.6	13	‡	¶
Home	1,870	13	8.1	1,945	32	6.1
Resident institutions	153	1	0.7	132	2	0.4
All other specified places†	1,704	11	7.4	216	4	0.7
Places unspecified	1,295	9	5.6	728	12	2.3

*Premium-paying business, Weekly and Monthly.
†Includes rivers, lakes, woods, and places of sports and recreation.
‡Less than 0.5. ¶ Less than .05.
Note—These figures exclude injuries sustained by military personnel in the course of duty.

machinery accidents a somewhat smaller proportion. An appreciable number of the fatal industrial injuries among males—13 percent—were due to burns other than in conflagrations. On farms, machinery was the major hazard; most of the deaths from this cause resulted from the overturning of tractors operated in agricultural work. The rather common use of firearms in rural areas undoubtedly accounted for the fact that such weapons ranked second in this experience as a cause of accidental deaths on farms.

Falls are by a considerable margin the leading cause of accidental death in and about the home. In this experience they accounted for two fifths of fatal home injuries among males and for virtually one half of such deaths among females. These proportions would unquestionably have been even higher if policyholders at ages 75 and over had been included in this study, because fatal falls are largely concentrated at the older ages. Conflagrations and burns by other means were also leading causes of accidental death, together being responsible for more than one quarter of the fatal injuries in and about the home among males and for fully one third of those among females. Among males the toll from conflagrations exceeded that for other types of burns, but for females the situation was the other way around. Gas poisoning, too, took an appreciable number of lives in each sex.

TABLE 2—PERCENT DISTRIBUTION OF DEATHS FROM ACCIDENTS BY PLACE OF ACCIDENT FOR PRINCIPAL TYPES OF INJURY. MALES AND FEMALES, AGES 1 TO 74 YEARS INDUSTRIAL POLICYHOLDERS,* METROPOLITAN LIFE INSURANCE COMPANY, 1951-1953

TYPE OF INJURY	Accidents, Total	Transport Accidents	NONTRANSPORT ACCIDENTS							
			Street and Highway	Public Buildings	Industrial Places and Premises	Farm	Home	Resident Institutions	All Other Specified Places†	Places Unspecified
	MALES									
Accidents—Total	100	100	100	100	100	100	100	100	100	100
Motor vehicle	44	85	—	—	—	—	—	—	—	—
Water transport	4	7	—	—	—	—	—	—	—	—
Railroad‡	3	5	—	—	—	—	—	—	—	—
Air transport	1	2	—	—	—	—	—	—	—	—
Other transport‡	¶	1	—	—	—	—	—	—	—	—
Falls	14	—	64	55	22	14	39	63	10	19
Drowning	9	—	1	¶	3	11	1	—	63	15
Burns (except conflagrations)	3	—	3	8	13	5	11	9	2	3
Conflagrations	3	—	—	8	3	2	16	2	1	¶
Firearm	3	—	5	5	2	17	8	1	9	6
Machinery	2	—	3	5	18	28	¶	1	2	1
Absorption of poisonous gases and vapors	2	—	3	5	3	1	9	3	¶	2
Poisoning by solids and liquids	1	—	¶	2	1	—	4	1	1	8
Electricity (except lightning)	1	—	8	3	6	4	2	1	2	1
All other accidents	10	—	13	9	29	18	10	19	10	45
	FEMALES									
Accidents—Total	100	100	100	100	100	100	100	100	100	100
Motor vehicle	44	94	—	—	—	—	—	—	—	—
Water transport	1	2	—	—	—	—	—	—	—	—
Railroad‡	1	2	—	—	—	—	—	—	—	—
Air transport	1	1	—	—	—	—	—	—	—	—
Other transport‡	¶	1	—	—	—	—	—	—	—	—
Falls	23	—	84	64	26	8	48	84	9	31
Drowning	4	—	1	—	17	23	1	1	72	5
Burns (except conflagrations)	7	—	—	7	5	—	19	5	4	5
Conflagrations	5	—	—	2	26	8	16	1	¶	1
Firearm	1	—	1	4	5	—	2	—	1	1
Machinery	¶	—	—	2	11	45	¶	—	—	—
Absorption of poisonous gases and vapors	3	—	6	7	5	—	6	1	1	2
Poisoning by solids and liquids	3	—	—	2	5	—	4	2	—	12
Electricity (except lightning)	¶	—	1	—	—	8	¶	—	—	¶
All other accidents	7	—	7	12	—	8	4	6	13	43

*Premium-paying business, Weekly and Monthly.
†Includes rivers, lakes, woods, and places of sports and recreation.
‡Except those involving collision with motor vehicles.
¶Less than 0.5.
Note—These figures exclude injuries sustained by military personnel in the course of duty.

Falls were particularly significant in fatal accidents on streets and highways (other than transport), in public buildings, and in resident institutions.

The category "All other specified places" in Table 2 includes mainly places used for sports and recreation, rivers, woods, and the like. A large proportion of the fatal injuries classified as occurring in these places was sustained in swimming, hunting, and other sports activities. Drowning alone accounted for about two thirds of all the deaths in this residual category. Falls and firearm accidents were also fairly prominent in the total, particularly among males.

DEATH RATES FROM SELECTED CAUSES
INDUSTRIAL POLICYHOLDERS, METROPOLITAN LIFE INSURANCE COMPANY
OCTOBER 1954

CAUSE OF DEATH	ANNUAL RATE* PER 100,000 POLICYHOLDERS†				
	OCTOBER		YEAR TO DATE		
	1954	1953	1954	1953	1952
All Causes—Total	580.8	610.1	626.7	650.8	655.6
—Excluding war deaths	580.7	609.5	623.5	648.7	652.9
Tuberculosis (all forms)	7.6	8.7	9.3	10.4	14.5
Tuberculosis of respiratory system	7.1	7.8	8.4	9.3	13.2
Syphilis	1.7	2.6	2.5	2.6	2.9
Communicable diseases of childhood	.1	.1	.3	.3	.6
Acute poliomyelitis	2.1	1.9	.7	1.1	1.5
Malignant neoplasms	127.8	126.0	129.2	126.0	126.2
Digestive system	46.6	45.5	47.2	44.8	47.0
Respiratory system	14.9	15.3	16.3	15.6	14.1
Diabetes mellitus	14.2	15.1	14.6	15.8	14.4
Diseases of the cardiovascular-renal system	298.9	319.0	326.2	344.0	344.3
Vascular lesions, central nervous system	56.0	61.2	63.3	67.2	69.1
Diseases of heart	220.1	235.6	237.0	249.6	246.6
Chronic rheumatic heart disease	11.9	11.7	12.4	13.0	13.4
Arteriosclerotic and degenerative heart disease	166.9	178.7	178.1	186.4	180.0
Hypertension with heart disease	32.6	37.9	37.4	40.7	43.2
Other diseases of heart	8.7	7.3	9.1	9.5	10.0
Hypertension without mention of heart	5.7	5.1	5.7	5.8	6.0
General arteriosclerosis	5.3	5.8	5.8	6.3	6.5
Other diseases of circulatory system	4.6	3.8	5.2	4.6	4.4
Nephritis and nephrosis	7.2	7.5	9.2	10.5	11.7
Pneumonia	10.9	9.0	13.0	15.7	15.6
Influenza	.2	.8	1.0	3.2	2.0
Ulcers of stomach and duodenum	4.8	5.5	4.7	5.0	4.7
Appendicitis	1.4	1.5	1.3	1.4	1.7
Hernia and intestinal obstruction	2.6	3.5	3.7	3.9	3.6
Gastritis, duodenitis, enteritis, etc.	2.1	3.4	2.4	2.5	2.9
Cirrhosis of liver	8.9	10.8	9.8	10.2	10.0
Diseases of the gall bladder and biliary ducts	2.7	3.7	3.2	3.6	3.5
Complications of pregnancy, childbirth	1.2	1.2	1.1	1.3	1.5
Congenital malformations	2.8	2.2	2.9	3.0	3.2
Suicide	5.9	5.8	5.6	6.1	6.1
Homicide	2.3	2.6	2.3	2.9	3.4
Accidents—total	34.9	38.9	36.8	38.0	41.0
Motor vehicle	15.6	17.7	14.5	15.8	16.3
Home	4.5	6.7	6.4	7.4	7.9
Occupational (civilian)	2.7	4.5	2.6	3.6	3.8
War deaths—enemy action	.1‡	.6	3.2‡	2.1	2.7
All other causes	47.5	47.6	52.8	51.8	49.3

*The rates for 1954 are provisional.
†Persons insured under Weekly and Monthly premium-paying policies.
‡The recorded mortality from war deaths in 1954 results from the payment of claims on policyholders originally reported as missing who have recently been declared officially dead.

Correspondence on the subjects discussed in the BULLETIN may be addressed to:

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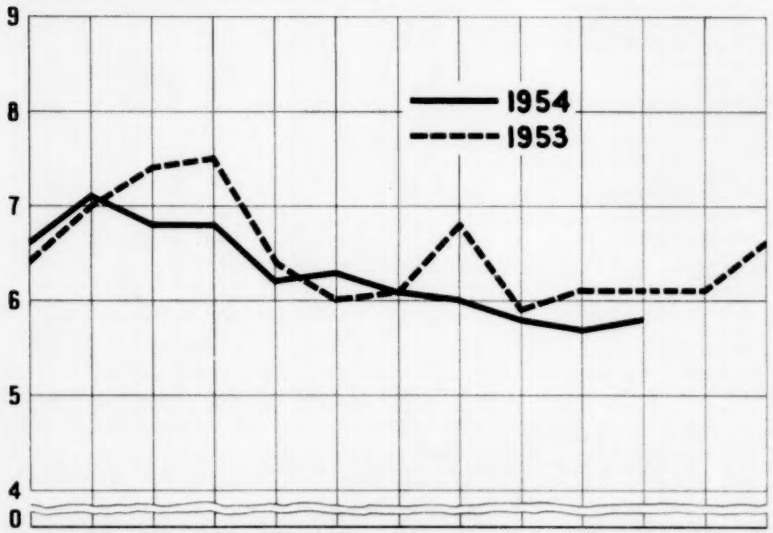
MORTALITY FROM ALL CAUSES

**METROPOLITAN LIFE INSURANCE COMPANY · INDUSTRIAL PREMIUM-PAYING BUSINESS
WEEKLY AND MONTHLY COMBINED**

DEATH RATES PER 1,000 POLICYHOLDERS · ANNUAL BASIS



(DEC)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	7.0	7.4	7.5	6.4	6.0	6.1	6.8	5.9	6.1	6.1	6.1	6.6
1954*	7.1	6.8	6.8	6.2	6.3	6.1	6.0	5.8	5.7	5.8		

1954 figures are provisional
**See footnote ‡ in table on page 11*

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